

Exhibit APending Claims after Election

5. A DNA sequence encoding a modified DNA polymerase that is a modified form of a DNA polymerase obtainable from *Carboxydotherrnus hydrogenoformans*, wherein said modified DNA polymerase

(a) exhibits reverse transcriptase activity in the presence of magnesium ions and/or manganese ions;

(b) has reduced or no 5'-3' exonuclease activity; and

(c) has substantially no RNaseH activity.

6. A DNA sequence of claim 5, wherein said modified DNA polymerase exhibits reverse transcriptase activity in the substantial absence of manganese ions.

7. A DNA sequence of claim 6, wherein said modified DNA polymerase has a molecular weight of about 64 to 71 kDa as determined by SDS polyacrylamide electrophoresis.

8. A DNA sequence of claim 7 encoding amino acid sequence SEQ ID NO: 11.

9. A DNA sequence of claim 8 having nucleotide sequence SEQ ID NO: 10.

10. A vector containing a DNA sequence of claim 5.

11. A vector containing a DNA sequence of claim 6.

12. A vector containing a DNA sequence of claim 7.

13. A vector containing a DNA sequence of claim 8.

14. A vector containing a DNA sequence of claim 9.
15. A vector of claim 14 that is p Δ_{2-225} AR₄.
16. A host cell transformed with the vector of claim 15.
17. A host cell of claim 16 that is *E.coli* GA1.